

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A lithographic projection apparatus comprising:
a support structure ~~for supporting~~ configured to support a patterning device, the patterning device serving to pattern a projection beam according to a desired pattern;
a substrate table ~~for holding~~ configured to hold a substrate;
a projection system ~~for projecting~~ configured to project the patterned beam onto a target portion of the substrate; and
a positioning system ~~for positioning~~ configured to position an object, selected from the group consisting of the support structure and the substrate table, said positioning system having a long stroke module and a short stroke module in series and a control system ~~for controlling~~ configured to control the long stroke and short stroke modules to move the positioned object along a desired course at desired speeds, ~~wherein~~, said control system is adapted to control said long and short stroke modules to apply a desired acceleration to said object by controlling said short stroke module to apply said desired acceleration to said object and to control said long stroke module to apply a smaller acceleration, said object moving at a substantially constant scanning velocity during a scanned exposure,

wherein said control system is adapted to control said short stroke module so that said object reaches said constant scanning velocity at or before the beginning of said scanned exposure and to control said long stroke module such that a driven end thereof reaches said scanning speed after the object has reached said scanning speed.

2. – 3. (Cancelled).

4. (Currently Amended) ~~Apparatus~~ An apparatus according to claim 2 1, wherein said control system is adapted to control said long and short stroke modules such that said driven object starts an exposure cycle at a first position at which it has a speed of zero in the direction parallel to said scanning velocity and said short stroke module is proximate an extreme of its range of movement in the direction opposite to said scanning velocity.

5. (Currently Amended) ~~Apparatus~~ An apparatus according to claim 4, wherein said control system is adapted to control said long and short stroke modules such that said short stroke module reaches a position proximate ~~an extreme~~ a center of its range of movement in the direction of said scanning velocity when said long stroke module reaches said scanning velocity.

6. (Currently Amended) ~~Apparatus according to claim 2~~ A lithographic projection apparatus comprising:

a support structure configured to support a patterning device, the patterning device serving to pattern a projection beam according to a desired pattern;

a substrate table configured to hold a substrate;

a projection system configured to project the patterned beam onto a target portion of the substrate; and

a positioning system configured to position an object, selected from the group consisting of the support structure and the substrate table, said positioning system having a long stroke module and a short stroke module in series and a control system configured to control the long stroke and short stroke modules to move the positioned object along a desired course at desired speeds, said control system adapted to control said long and short stroke modules to apply a desired acceleration to said object by controlling said short stroke module to apply said desired acceleration to said object and to control said long stroke module to apply a smaller acceleration, said object moving at a substantially constant scanning velocity during a scanned exposure,

wherein said control system is adapted to control said long stroke module to begin deceleration before the end of said scanned object begins to decelerate.

7. (Currently Amended) ~~Apparatus~~ An apparatus according to claim 2 1, wherein said control system is adapted to control said long and short stroke modules such that said driver object ends an exposure cycle at a second position at which it has a speed of zero in the direction parallel to said scanning velocity and said short stroke module is proximate an extreme of its range of movement in the direction of said scanning velocity.

8. (Currently Amended) A device manufacturing method comprising:
projecting a patterned beam of radiation onto a target portion of the layer of radiation-sensitive material on a substrate; and
positioning at least one of the substrate and a patterning device used to pattern the beam with a positioning system comprising a long stroke and a short stroke module in series;
~~and~~
accelerating the substrate or the patterning device by applying a higher acceleration with the ~~set~~ short stroke module than with the long stroke module;
moving the object at a substantially constant scanning velocity during a scanned exposure; and
controlling the short stroke module so that the object reaches the constant scanning velocity at or before the beginning of the scanned exposure and controlling the long stroke module such that a driven end thereof reaches the scanning speed after the object has reached the scanning speed.

9. (Currently Amended) A machine readable medium comprising machine executable instructions for performing a method comprising:
projecting a patterned beam of radiation onto a target portion of the layer of radiation-sensitive material on a substrate; and
positioning at least one of the substrate and a patterning device used to pattern the beam with a positioning system comprising a long stroke and a short stroke module in series;
~~and~~
accelerating the substrate or the patterning device by applying a higher acceleration with the ~~set~~ short stroke module than with the long stroke module;
moving the object at a substantially constant scanning velocity during a scanned exposure; and
controlling the short stroke module so that the object reaches the constant scanning velocity at or before the beginning of the scanned exposure and controlling the long stroke module such that a driven end thereof reaches the scanning speed after the object has reached the scanning speed.